

Pinus strobus - Populus tremuloides / Corylus cornuta Forest

COMMON NAME	White Pine - Trembling Aspen / Beaked Hazelnut Forest
SYNONYM	White Pine-Aspen-Birch Forest
PHYSIOGNOMIC CLASS	Forest (I)
PHYSIOGNOMIC SUBCLASS	Mixed evergreen-deciduous forest (I.C)
PHYSIOGNOMIC GROUP	Mixed needle-leaved evergreen - cold-deciduous forest (I.C.3)
PHYSIOGNOMIC SUBGROUP	Natural/Semi-natural (I.C.3.N)
FORMATION	Mixed needle-leaved evergreen - cold-deciduous forest (I.C.3.N.a)
ALLIANCE	PINUS STROBUS - (PINUS RESINOSA) - POPULUS TREMULOIDES FOREST ALLIANCE

CLASSIFICATION CONFIDENCE LEVEL 2

USFWS WETLAND SYSTEM TERRESTRIAL

RANGE

Isle Royale National Park

This community is uncommon, and seems to be restricted to the Minong Ridge from Lake Desor to McCargoe Cove, and the Greenstone Ridge near Hatchet Lake.

Globally

This association is found in northern Minnesota, northern Wisconsin, northern Michigan, and northwestern Ontario.

ENVIRONMENTAL DESCRIPTION

Isle Royale National Park

This community occupies gentle to somewhat steep slopes, usually with a south to southeast aspect, at elevations ranging from 745 to 1050 feet. Soils are usually sandy loams.

Globally

Stands are found on a variety of slope positions on shallow to deep (> 60 cm), dry-mesic to mesic, rapidly drained soils, with fine sandy to loamy soil textures (Sims *et al.* 1989, MN NHP 1993, Chambers *et al.* 1997).

MOST ABUNDANT SPECIES

Isle Royale National ParkStratum

Tree canopy

Species*Pinus strobus*, *Betula papyrifera***Globally**Stratum

Tree canopy

Species*Pinus strobus*, *Betula papyrifera*, *Populus tremuloides*

CHARACTERISTIC SPECIES

Isle Royale National Park*Pinus strobus*, *Betula papyrifera***Globally***Pinus strobus*, *Betula papyrifera*, *Populus tremuloides*

VEGETATION DESCRIPTION

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White pine - aspen - birch forest is a closed canopy forest with a variable mixture of evergreen and deciduous trees. Canopy cover of trees is usually 70 to 80%. Most sites sampled had a predominantly evergreen canopy, with less than 25% of the canopy cover made up of deciduous trees, but some were mixed. *Pinus strobus* is usually the most abundant tree (25 to 75% cover), mixed with smaller numbers of *Populus tremuloides*, *Betula papyrifera*, and *Abies balsamea*. Cover of short shrubs varies from 10 to 40%; the most abundant short shrub is *Rubus parviflorus* (5 to 25% cover); other characteristic shrubs are *Diervilla lonicera* and *Amelanchier* spp. Cover of herbs varies from 20 to 60%; the most abundant herbs are *Aster macrophyllus* and *Aralia nudicaulis*.

Globally

The tree canopy is mixed evergreen-deciduous. *Pinus strobus* may form a supercanopy over a mixture of other species, including *Betula papyrifera*, *Populus tremuloides*, *Picea glauca*, and *Abies balsamea*. Less frequent are *Pinus resinosa*, *Populus*

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Isle Royale National Park

grandidentata, and *Thuja occidentalis*. The subcanopy can include *Acer rubrum* and *Acer saccharum*, as well as a mixture of canopy species. Tall shrubs and saplings include *Abies balsamea*, *Acer spicatum*, *Amelanchier* spp., and *Corylus cornuta*. Short shrubs include *Diervilla lonicera*, *Linnaea borealis*, *Lonicera canadensis*, and *Vaccinium myrtilloides*. *Viburnum cassinoides* may be present in the eastern part of the range. Herbs include *Aralia nudicaulis*, *Aster macrophyllus*, *Clintonia borealis*, *Cornus canadensis*, *Maianthemum canadense*, *Oryzopsis asperifolia*, *Pteridium aquilinum*, *Streptopus roseus*, and *Trientalis borealis*. Typical mosses include *Pleurozium schreberi*, *Dicranum polysetum*, and *Dicranum flagellare* (Sims *et al.* 1989, Minnesota NHP 1993, Chambers *et al.* 1997).

OTHER NOTEWORTHY SPECIES

Isle Royale National Park

Information not available.

CONSERVATION RANK G4?

DATABASE CODE CEGLO02479

MAP UNITS 03

COMMENTS

Globally

This community may arise as a successional stage after fire, but may also originate after logging.

REFERENCES

- Chambers, B.A., B.J. Naylor, J. Nieppola, B. Merchant, P. Uhlig. Field Guide to Forest Ecosystems of Central Ontario. Southcentral Science Section (SCSS) Field Guide FG-01, Ontario Ministry of Natural Resources, North Bay, Ontario, Canada. 200 pp.
- Minnesota Natural Heritage Program. 1993. Minnesota's native vegetation: A key to natural communities. Ver. 1.5. Minn. Dep. Nat. Resour., Nat. Heritage Prog. St. Paul, Minn. 110 p.
- Sims, R. A., W. D. Towill, K. A. Baldwin, and G. M. Wickware. 1989. Field guide to the forest ecosystem classification for northwestern Ontario. Ontario Ministry of Natural Resources.